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OKAMOTO & BENEDICTO, LLP
P.O. BOX 641330
SAN JOSE, CA 95164

EXAMINER	
MCNALLY, MICHAEL S	

ART UNIT	PAPER NUMBER
2136	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/804,832	PERKINSON, TERRY D.	
	Examiner	Art Unit	
	Michael S. McNally	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20070607*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-28 are presented for examination.

2. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, l 45-48; p 2100-9, c 1, l 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 7 June 2007 has been considered by the examiner.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 7, 14, 16, 22 and 25 refer to a "private network". This phrase in said claims lacks antecedent basis in the specification.

Claim Objections

5. Claim 15 is objected to because of the following informalities: the limitation "said wired network lacks antecedent basis as none of claims 11, 9, 5, 4, or 1 refer to a "wired network". For the purposes of examination claim 15 is being treated as if it depends from claim 10, which would provide proper antecedent basis. Appropriate correction is required.

6. Claim 17 is objected to because of the following informalities: the limitation "said physical access points" lacks antecedent basis as none of claims 14, 10, 7, 4 or 1 refer to a "physical access point". For the purposes of examination, claim 17 is being treated as if it depends from claim 16, which would provide proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. **Claims 1, 3-5, 7-11, 13, 18-21 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2005/0243803 by *Fang*.**

As to **claim 1**, *Fang* teaches an apparatus for data transfer comprising:

a first network (*Fang*: 170 – Fig 4; Page 2, Sec 18; Internet);

a second network (*Fang*: 180 – Fig 4; Page 2, Sec 18; PSTN network);

and a plurality of nodes on said first network wherein secured data is transferred between at least two nodes of said plurality of nodes on said first network only if said at least two nodes also exist on said second network (*Fang:* 100, 102 – Fig 4 and Fig 7a; DNE's 100 and 102 arbitrate security through the PTSN network and shared protected content over the Internet).

As to **claim 3**, *Fang* further teaches wherein unsecured data is freely transferred between said at least two nodes on said second network (*Fang:* Fig 5, Page 2, Sec 19).

As to **claim 4**, *Fang* further teaches wherein said at least two nodes exist on said second network for the entire period of said data transfer across said first network (*Fang*: Fig 8; Page 3, Sec 24-25 – PSTN network used to send audio data for CRG/DNE setup).

As to **claim 5**, *Fang* further teaches further including security negotiation for use of said first network wherein said security negotiation data is transferred between said at least two nodes only over said second network (*Fang*: Fig 7a, 7b; Page 3, Sec 22,23 and Page 2, Sec 18; security information an encryption keys are exchanged over he PSTN network).

As to **claim 7**, *Fang* further teaches wherein said second network is a private network (*Fang*: 180 – Fig 4; PSTN is a private network insofar as it provided by corporations and not by the government).

As to **claim 8**, *Fang* further teaches further including at least one interface module for communicating with data resources (*Fang*: 117– Fig 3; Page 2, Sec 17).

As to **claim 9**, *Fang* further teaches wherein said security negotiation further includes at least one authentication key (*Fang*: Fig 7a; Page 3, Sec 22).

As to **claim 10**, *Fang* further teaches wherein said private network is a wired network (*Fang*, Page 2, Sec 17; PSTN comprised of analog phone lines).

As to **claim 11**, *Fang* further teaches wherein said authentication key is periodically changed (*Fang*: Page 3, Sec 23; two-way key exchange can be used to build a data tunnel with dynamic keys).

As to **claim 13**, *Fang* further teaches wherein said authentication key is established by one of the group consisting of the manufacturer, the service provider, the end user and a predetermined algorithm (*Fang*: Page 3, Sec 22).

As to **claim 18**, *Fang* teaches a method for data transfer, the method comprising the steps of:

providing a first network (*Fang*: 170 – Fig 4; Page 2, Sec 18; Internet);

providing second network (*Fang*: 180 – Fig 4; Page 2, Sec 18; PSTN network);

authenticating a relationship between at least two nodes on said second network (*Fang*: Fig 7a, 7b; Page 3, Sec 22,23 and Page 2, Sec 18; security information an encryption keys are exchanged over he PSTN network);

transferring data between said at least two nodes on said first network (*Fang*: Fig 7a, Page 3, Sec 22);

re-authenticating a relationship between at least two nodes on said second network (*Fang*: Fig 7b, Page 3, Sec 23; on-going , dynamic key exchange); and

de-authenticating a relationship between at least two nodes (*Fang*: Page 2, Sec 18; PSTN connection can be released after secure channel completed).

As to **claim 19**, *Fang* further teaches wherein said step of determining whether at least two nodes of said plurality of nodes exist on both said first network and said second network further includes:

requesting mutual authentication of said relationship between at least two nodes of said plurality of nodes via said first network to allow data transfer between said at least two nodes of said plurality of nodes over said second network (*Fang*: Fig 5, Page 2, Sec 19);

and authenticating said at least two nodes of said plurality of nodes (*Fang*: Fig 7a, 7b; Page 3, Sec 22,23 and Page 2, Sec 18; security information an encryption keys are exchanged over he PSTN network).

As to **claim 20**, *Fang* further teaches wherein said step of authenticating said at least two nodes of said plurality of nodes is repeated periodically on said second network throughout the duration of said data transfer (*Fang*: Fig 7b, Page 3, Sec 23; on-going , dynamic key exchange).

As to **claim 21**, *Fang* further teaches wherein said step of de-authenticating said relationship between at least two nodes is conducted on said second network nodes (*Fang*: Page 2, Sec 18; PSTN connection can be released after secure channel completed).

As to **claim 23**, *Fang* teaches an apparatus for data transfer, the method comprising the steps of:

means for providing a first network (*Fang*: 170 – Fig 4; Page 2, Sec 18; Internet);

means for providing second network (*Fang*: 180 – Fig 4; Page 2, Sec 18; PSTN network);

means for authenticating a relationship between at least two nodes on said second network (*Fang*: Fig 7a, 7b; Page 3, Sec 22,23 and Page 2, Sec 18; security information an encryption keys are exchanged over he PSTN network);

means for transferring data between said at least two nodes on said first network (*Fang*: Fig 7a, Page 3, Sec 22);

means for re-authenticating a relationship between at least two nodes on said second network (*Fang*: Fig 7b, Page 3, Sec 23; on-going , dynamic key exchange); and

means for de-authenticating a relationship between at least two nodes on said second network (*Fang*: Page 2, Sec 18; PSTN connection can be released after secure channel completed).

As to **claim 24**, *Fang* further teaches wherein said step of determining whether at least two nodes of said plurality of nodes exist on both said first network and said second network further includes:

means for requesting mutual authentication of said relationship between at least two nodes of said plurality of nodes via said first network to allow data transfer between said at least two nodes of said plurality of nodes over said second network (*Fang*: Fig 5, Page 2, Sec 19);

and means for authenticating said at least two nodes of said plurality of nodes (*Fang*: Fig 7a, 7b; Page 3, Sec 22,23 and Page 2, Sec 18; security information an encryption keys are exchanged over he PSTN network).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0243803 by *Fang*.

As to **claim 2**, *Fang* discloses all recited elements of claim1 from which claim 2 depends. Specifically, Fang discloses the Internet as its "first network" (*Fang*: 170 – Fig 4; Page 2, Sec 18).

Fang does not expressly disclose wherein unsecured data is freely transferred between said at least two nodes on said first network.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to use the Internet as a network to freely transfer unsecured data. The rationale would have been that the Internet is an old and well-known feature in the art of networks and is commonly used for the purpose of transferring insecure data.

12. Claims 6, 14-17, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0243803 by *Fang* in view of U.S. Patent Application Publication No. 2002/0057684 to *Miyamoto et al*.

As to **claim 6**, *Fang* discloses all recited elements of claim 4 from which claim 6 depends.

Fang does not expressly disclose wherein said first network is a wireless network.

Miyamoto discloses wherein said first network is a wireless network (*Miyamato*: Page 3, Sec 24).

Fang and *Miyamoto* are analogous art because they are from the art of computer networking.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to use a wireless network. The rationale would have been that standards for wireless networks are readily available (*Miyamato*: Page 3, Sec 24).

As to **claim 14**, *Fang* discloses all recited elements of claim 10 from which claim 14 depends.

Fang does not expressly disclose wherein said private network has predetermined physical boundaries.

Miyamoto discloses wherein said private network has predetermined physical boundaries (*Miyamoto:* Page 5, Sec 45).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to have a private network with predetermined physical boundaries. The rationale would have been that doing so would create networking localities (*Miyamato*: Page 5, Sec 45).

As to **claim 15**, *Fang* discloses all recited elements of claim 10 from which claim 15 depends.

Fang does not expressly disclose wherein said wired network is selected from the group comprising facility electrical wiring network, a home PNA telephone wiring network, a standard wired Ethernet network, and a coaxial cable network.

Miyamoto discloses wherein said wired network is selected from the group comprising facility electrical wiring network, a home PNA telephone wiring network, a standard wired Ethernet network, and a coaxial cable network (*Miyamato*: Page 3, Sec 25; Ethernet).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to use Ethernet for a wired network. The rationale would have been that Ethernet is an old and well known means for creating wired networks.

As to **claim 16**, the modified *Fang/Miyamoto* reference further discloses wherein said private network further includes predetermined physical access points (*Miyamato*: Page 3, Sec 25).

As to **claim 17**, the modified *Fang/Miyamoto* reference further discloses wherein said physical access points include at least one selected from the group consisting of electrical outlets, phone jacks, and Ethernet jacks (*Miyamato*: Page 3, Sec 25).

As to **claims 22 and 25**, the modified *Fang/Miyamoto* reference further discloses wherein said first network is a wireless network (*Miyamato*: Page 3, Sec 24) and said second network is a private network (*Fang*: 180 – Fig 4; PSTN is a private network insofar as it provided by corporations and not by the government).

13. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0243803 by *Fang* in view of U.S. Patent No. 5,592,553 to *Guski et al.*

As to **claim 12**, *Fang* discloses all recited elements of claim 9 from which claim 12 depends.

Fang does not expressly disclose wherein said authentication key is randomly changed.

Guski discloses wherein said authentication key is randomly changed (*Guski*: Col 6, Lines 35-41; one time password generated in a pseudo-random fashion).

Fang and *Guski* are analogous art because they are from the art of computer networking.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to randomly change authentication keys. The rationale would have been for increased security, as intercepting the key provides no useful information about future keys (*Guski*: Col 1, Lines 40-46).

14. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2005/0243803 by *Fang* in view of U.S. Patent Application Publication No. 2004/0116118 by *Karaoguz et al.*

As to **claim 26**, *Fang* discloses an apparatus for data transfer comprising:

at least one interface module for communicating with data resources (*Fang*: 117 – Fig 3);

a home wired network interface module for sending and receiving control packets and security packets (*Fang:* 120 – Fig 3); and

a processing unit for encapsulating data packets, de-encapsulating said data packets, processing said security packets, processing said control packets, detecting a second processing unit on both said home wired network and said wireless network and delivering said data packets on said wireless network interface module to said second processing unit (*Fang*: 115 – Fig 3).

Fang does not expressly disclose a wireless network interface module for sending and receiving data packets.

Karaoguz discloses a wireless network interface module for sending and receiving data packets (*Karaoguz:* 132 – Fig 1C; Page 4, Sec 42).

Fang and *Karaoguz* are analogous art because they are from the art of computer networking.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to use a wireless network interface in a data transfer apparatus. The rationale would have been that it is obvious to combine these known elements to yield the predictable result of the instant application. *Fang* and *Karaoguz* in combination contained all of the elements required for claim 26, however, the difference being that neither *Fang* nor *Karaoguz* combined said elements. One of ordinary skill in the art could have combined the elements present in *Fang* and *Karaoguz* with the knowledge that in combination, said elements would have performed the same functions that they did separately. Furthermore, one of ordinary skill in the art would have recognized that the results of the combination were predictable. In fact, for one of ordinary skill in the art of software systems development, there would have been a reliance on the fact that the results of the combination would be predictable.

As to **claim 27**, the modified *Fang/Karaoguz* reference discloses all recited elements of claim 26 from which claim 27 depends.

Fang does not expressly disclose wherein said data resources are selected from the group comprising internet, cable, telephone, digital versatile disc, personal video recorder, personal computer and video camera.

Karaoguz discloses wherein said data resources are selected from the group comprising internet, cable, telephone, digital versatile disc, personal video recorder,

personal computer and video camera (*Karaoguz*: 411; Fig 4; Page 6, Sec 65-66; personal computer).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to choose from the recited list of data resources. The rationale would have been that it is obvious to combine these known elements to yield the predictable result of the instant application. *Fang* and *Karaoguz* in combination contained all of the elements required for claim 27, however, the difference being that neither *Fang* nor *Karaoguz* combined said elements. One of ordinary skill in the art could have combined the elements present in *Fang* and *Karaoguz* with the knowledge that in combination, said elements would have performed the same functions that they did separately. Furthermore, one of ordinary skill in the art would have recognized that the results of the combination were predictable. In fact, for one of ordinary skill in the art of software systems development, there would have been a reliance on the fact that the results of the combination would be predictable.

As to **claim 28**, the modified *Fang/Karaoguz* reference discloses all recited elements of claim 26 from which claim 28 depends.

Fang does not expressly disclose wherein said apparatus is integrated within home entertainment and computing equipment.

Karaoguz discloses wherein said apparatus is integrated within home entertainment and computing equipment (*Karaoguz:* Fig 9A).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to integrate an access apparatus into home entertainment electronics. The

rationale would have been that it is obvious to combine these known elements to yield the predictable result of the instant application. *Fang* and *Karaoguz* in combination contained all of the elements required for claim 28, however, the difference being that neither *Fang* nor *Karaoguz* combined said elements. One of ordinary skill in the art could have combined the elements present in *Fang* and *Karaoguz* with the knowledge that in combination, said elements would have performed the same functions that they did separately. Furthermore, one of ordinary skill in the art would have recognized that the results of the combination were predictable. In fact, for one of ordinary skill in the art of software systems development, there would have been a reliance on the fact that the results of the combination would be predictable.

Prior Art

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent Application Publication No. 2005/0136892 by *Osterling et al* discloses secure authentication of a wireless channel.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. McNally whose telephone number is (571)270-1599. The examiner can normally be reached on Monday through Friday 9:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami can be reached on (571)272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSM

/Michael S McNally/
Examiner, Art Unit 2136
12 February 2008

/Nasser G Moazzami/
Supervisory Patent Examiner, Art Unit 2136